

## **DECiPHER**

### The **economy** domain of municipal influence

#### **1. Purpose.**

This note reviews the potential impact of local economic programmes on reducing cardiovascular disease (CVD) in European cities.

#### **2. Rationale.**

The aim of DECiPHER is to produce a training package for municipalities which helps decision-makers optimise the mix of citywide programmes and investments to maximise public health impacts. The training package (VET) depends on a cost-benefit model, initially focusing on CVD as the biggest cause of death and disability in Europe. The first work package of DECiPHER led by Sheffield Hallam University, includes work to enhance the extant model of 'downstream' or proximal determinants of health by incorporating 'upstream' or 'distal' determinants of health. Economy is one of the six distal domains selected by partners as a potentially important municipal influence on the prevalence of CVD.

#### **3. Method.**

This is a preliminary assessment of the scope, scale and potential impact of municipal investment in economic development, employment and social support. First we develop a schematic model, then second, plug-in evidence from 15 scientific studies to populate the model.

#### **4. Role and influence of European municipalities.**

Municipalities have influence (and often a constitutional/legal **competence**) over the economic domain either by (i) providing a strategic framework for city development (ii) directly providing local employment (iii) purchasing services from contracting agencies, or (iv) influencing the investment programmes and services of **partner** agencies.

European municipalities have had a traditional role in regulating the working environment. In the 19th and 20th Centuries they focused on the physical working environment - for example on the tough working conditions in Sheffield's metal workshops, Turku's shipyards, Udine's textile factories and Helsingborg's rubber processing works. Now, when more people (in the UK at least) are employed in telephone call centres than in the combined industries of coal-mining, shipbuilding and car manufacture, the focus has shifted to the psychosocial environment. European municipalities appear to have a residual role in regulating the physical environment of small enterprises in order to ensure food hygiene, prevent accidents

and respiratory problems. We estimate this activity has relatively little impact on heart disease and consideration is excluded from this note.

Specifically, city governments may influence the performance of the local economy in four ways, by (i) economic development strategy (ii) neighbourhood regeneration (iii) municipal employment (iv) financial support to individuals.

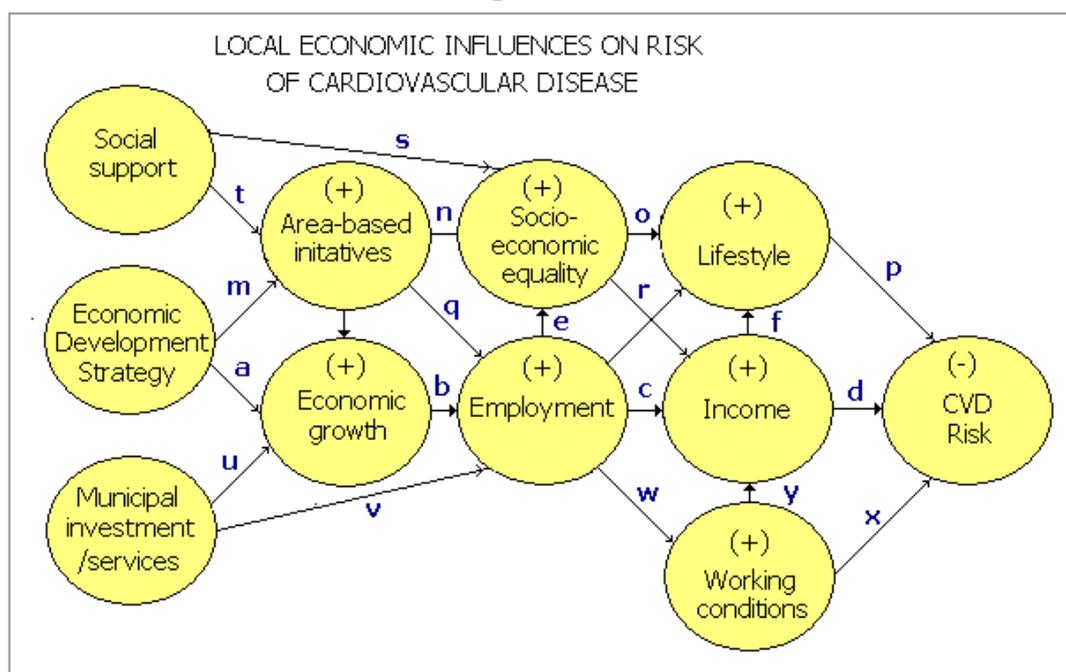
- (i) *Economic development.* The macro-economic policies of the European Union (EU) and of European central governments combine to have the greatest impact on city economies. However, municipalities have an increasing role in transforming their local economies into '*dynamos of national and regional economies rather than economic liabilities.*'<sup>ii</sup> Often with Regional Development Agencies they invest in skills, training and economic infrastructure. They may (as in Udine) form partnerships with economic organisations and private enterprises to promote economic development or (as in Turku) directly own companies and enterprises with board members nominated by the city council. Most invest in a supportive social and environmental infrastructure because they understand that economic policy '*should recognise the linkages between housing, education, transportation, health and welfare policies and not treat them separately.*'<sup>iii</sup> Many city health development plans, and overarching municipal plans, acknowledge this interdependency.<sup>iv</sup> Healthy Urban Planning adopted by many member cities of the WHO European Healthy Cities Network promotes spatial strategies which acknowledge the interdependence of health and sustainable development.<sup>v vi</sup>
- (ii) *Neighbourhood and area-based regeneration.* Generic local economic development strategies may not address persistent economic inequalities between regions and within cities.<sup>vii</sup> The EU is the largest investor in programmes, such as those meeting Objective 1 to promote convergence and reduce disparities between European sub-regions. Within member states, regional agencies and governments also address disparities within their domain and cities address disparities between neighbourhoods. As with generic economic development policies, investments in poor neighbourhoods invariably link economic development to a more supportive social and environmental infrastructure.
- (iii) *Municipal employment.* Following the decline of large industrial enterprises in the later decades of the 20<sup>th</sup> Century, municipalities became the biggest employer in most European cities; with the health sector (often influenced/controlled by municipal nominees on the board) the second biggest employer. During this period left-leaning members of the policy community maintained that public sector employment boosted the local economy. In the closing two decades of the 20<sup>th</sup> Century, the dominant counter-trend was to outsource some municipal and health services. However, municipalities retained influence by incorporating beneficial working conditions and payments in contracts with private or third sector suppliers of goods and services.

- (iv) *Financial support.* The level and scope of subsidies to low income households, ill or unemployed individuals, are generally determined by European central governments. Municipalities may administer certain subsidies as an agent of central government, such as Housing Benefits in the UK. Additionally, many municipalities provide support services such as advice and advocacy.

### 5. Three economic pathways to reducing CVD: improving working conditions, increasing income, improving lifestyle.

Schematic figure 1 shows pathways from three economic interventions to three proximal determinants of CVD risk.

Figure 1



- (i) *Economic development strategy and social support.* Though there is an enormous amount of grey literature on local economic strategies, there is no consensus on their added value. The assumption of municipal policy-makers and their partners is that local interventions will promote more economic growth than would otherwise prevail,<sup>viii</sup> leading to higher rates of employment and higher incomes for the newly employed (route a – b – c in figure 1). Insofar as the new entrants into the labour market were previously unemployed or dependent on relatively low state benefits, then this ‘trickle-down’ process from mainstream economic development will tend towards equalising incomes across city populations of working age (route e). In addition, municipalities and their partners may adopt a more focused approach to addressing inequalities via special economic and social initiatives in poor neighbourhoods of their cities, leading to greater socio-economic equality (route m – n) because of higher levels of employment and income (route q – c). Social support, either as an element of a neighbourhood

initiative (route t – n) or to individuals (s) should lead to greater socio-economic equality.

There is compelling evidence of a social gradient in health<sup>ix</sup> and epidemiological evidence that prevalence of CVD is highly correlated (route r – d) with socio-economic status (SES).<sup>x</sup> In their study of *Framingham Offspring*, Loucks et al show how cumulative exposure to socio-economic disadvantage across the life course maybe associated with CHD:<sup>xi</sup> those with low SES are more likely to exhibit the CVD risk factors of high blood pressure, obesity, high cholesterol, and high glucose levels.

However the mechanisms linking SES to risk factors are not fully clear. There are two conundrums. *First*, is the risk of CVD lessened by a general increase in income levels (and the material wealth) of a city's working age population or only lessened by flattening the SES gradient – the '*sprit level*' according to Richard Wilkinson?<sup>xii</sup> In the later decades of the 20<sup>th</sup> Century, as absolute poverty was progressively eliminated from Western Europe, sociologists emphasised the saliency of 'relative deprivation.'<sup>xiii</sup> Relative deprivation may lead to social-exclusion, stress and depression which are CVD risk factors. Therefore municipal programmes which boost income generally but maintain income differentials may have no positive impact on CVD.

The second conundrum is the relationship between SES and lifestyle and their relative contributions to CVD risk. Some associations are clear. In the later decades of the 20<sup>th</sup> Century the inverse relationship between smoking and SES became pronounced as the *Framingham Offspring study* highlights. However, in their study of 22 European countries, Mackenbach el al reveal a more complex relationship between lifestyle risks and SES.<sup>xiv</sup> CVD mortality was relatively high in the relatively egalitarian Scandinavian states and lower more unequal states of Southern Europe, possibly because of their 'Mediterranean' diet. 'Diseases of affluence' is a popular paradigm which associates greater disposable income with unhealthy lifestyles and therefore a higher risk of CVD. Ezzati et al rethink the concept,<sup>xv</sup> first acknowledging the association but then identifying a tipping point where those higher socio-economic adopt healthier lifestyles.

- (ii) *Municipal Employment/Contracts.* As indicated above, municipalities in the 21<sup>st</sup> Century now have a limited role in regulating the working conditions of private enterprises. However, as the biggest employers within most European cities, they have a direct influence over the working conditions of their staff and contractors (route v-w). In his famous studies of the British Civil Service (The Whitehall studies) Michael Marmot showed how in a common office environment, staff with little control over their pattern of work are at greater risk of CHD than those with more control.<sup>xvi</sup> He and Richard Wilkinson argue in *Solid Facts* that '*mechanisms should therefore be developed to allow people to influence the design and improvement of their work environment, thus enabling employees to have more control, greater variety and more opportunities for development at work.*'

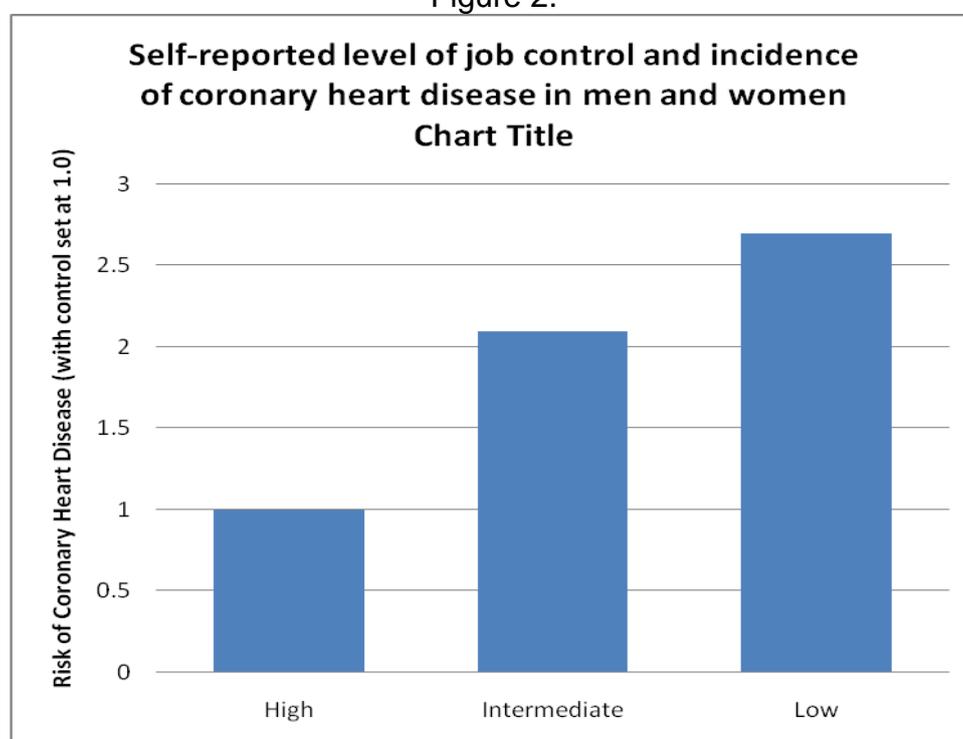
## 6. Cost-benefit: scale & scope

At this stage the pathways from local economic development are too complex and uncertain to predict the potential scale of their impact on CVD risk. There are at least three uncertainties. *First*, upstream, the scale of municipal economic investment is difficult to determine and difficult to separate from supporting investment in environmental, social and educational infrastructure. In the next stage of DECiPHER it should be possible to disaggregate municipal budgets, allocating for example a percentage of the €1.1bn annual (2009) expenditure of Turku municipality and £1.4 bn (€1.6bn, 2008) of Sheffield municipality.

*Second*, there is a contentious methodology for measuring the impact of these investments/interventions on economic growth, employment, income and socio-economic equality. *Third*, the mechanisms which convert these values into risk factors are not fully clear given the complicated relationship between socio-economic inequalities and lifestyle.

The evidence on working conditions is more straightforward. Figure 2 extracted from *Solid Facts*, shows the increased risk of CVD arising when employees have little control of their working environment and work processes. Employees with low control are 2.7 times more likely than those with high levels of control to suffer from CHD. It should be feasible to use protocols from the Whitehall studies to establish a baseline of job control for municipal employees, estimate the potential for improving working conditions and predict the reduced risk of CVD.

Figure 2.



Source: Bosma H et al. (1998) Two alternative job stress models and risk of coronary heart disease. *American Journal of Public Health*. Vol.88: 68-74.

## 7. Summary.

This note lays the foundations for developing the DECiPHER model to include a cost-benefit component of municipal investment in the local economy. An initial schematic model suggests three routes to reducing the risk of CVD: economic development with special focus on reducing socio-economic inequalities, social support and improving the working conditions of municipal employees and sub-contractors. Evidence from a number of social scientific and medical studies indicates the principal routes. At this stage it is very difficult to make even a broad estimate of the scale of potential impacts of economic development policies. The next stage of developing the DECiPHER model will address the methodological difficulties. Estimating the potential of improved working conditions for municipal employees and contractors is an easier task.

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